

ABSTRACT OF THE DISCLOSURE

The invention provides a method and system for selectively canceling a
5 specified frequency band in the payload of an optical communication system. This
selected frequency band is to be used for launching pilot tones for power
measurement and identification. The method controls the intensity of the optical
payload signal through an intensity modulator that is included in the optical
communication system. The frequency band in payload to be cancelled is removed
10 where as the other frequency components of the payload are passed without
attenuation. An embodiment that uses a feed-forward unit, a feedback unit and a
control unit for generating a cancellation signal for the intensity modulator is
described. An advantage of the method is that it removes a continuum of payload
tones in the specified frequency band to be cancelled.